

REMARKS

Claims 1-37 are cancelled. Claims 38-39, and 41-50 are amended. Claim 40 is currently amended. As a result, Claims 38-55 remain pending the application.

Rejection of Independent Claim 38 Under 35 USC 103(a)

Independent claim 38 stands rejected as being unpatentable over U.S. Patent Number 6,466,341 (Lumish) in view of U.S. Patent Number 5,917,626 (Lee).

Lee is not analogous prior art

In order “to rely on a reference under 35 USC §103, it must be analogous prior art.” See header of MPEP §2141.01(a). Lee is non-analogous art and is not properly combined with Lumish.

MPEP §2141.01(a) provides a two-part test for determining whether a piece of prior art is analogous prior art. First, “the reference must ... be in the field of the applicant’s endeavor.” MPEP §2141.01(a) also cites *Wang Laboratories, Inc. vs. Toshiba Corporation*, 993 F.2d 858, 26 U.S.P.Q. 2d 1767 (Fed. Cir., 1993). Applicant’s field of endeavor is add/drop nodes while Lee’s field of endeavor is demultiplexers/multiplexers. See the Title of current Application and Title of Lee. Accordingly, Lee is not in the applicant’s field of endeavor and the Lee reference fails the first part of the test.

MPEP §2141.01(a) sets forth the second part of the two-part inquiry when it states that if the reference is not in Applicant’s field of endeavor, it must “be reasonably pertinent to the particular problem with which the inventor was concerned.” A “reference is reasonably pertinent if ... it ... logically would have commended itself to an inventor's attention in considering his problem.” See MPEP §2141.01(a) citing to *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993).

The problem being addressed by the Applicant is set forth in the third paragraph of the Background of the specification (page 2, lines 1-9). The Applicant is trying to generate a hitless add/drop node, i.e., an add/drop node that does not lose information carried on intervening channels when tuning from a first channel to a second channel. As a result, Lee must commend itself to the attention of an inventor trying to generate a hitless add/drop node. However, there is

no teaching in Lee that suggests Lee would be suitable for use in a hitless add/drop node. As a result, an inventor solving applicant's problem would not turn to Lee for a solution.

Because Lee is both from a different field of endeavor and is not reasonably pertinent to the Applicant's problem, Lee fails both parts of the MPEP §2141.01(a) analogous art test. Because Lee is not analogous prior art, Lee is not available for use in a rejection under 35 USC §103 and the rejection should be withdrawn.

The Cited References Teaches Away from Their Combination

Lee and Lumish teach away from their combination. However, "References Cannot be Combined Where Reference Teaches Away from Their Combination" as disclosed in the heading of MPEP §2145(X)(D)(2). Since Lee and Lumish teach against their combination, Lee and Lumish are not properly combined.

Lumish teaches that filter based demultiplexers are undesirable at column 3, lines 47-51. As a result, Lumish teaches away from the use of Filter based demultiplexers. However, Lee is concerned with filter based demultiplexers as disclosed in the Title of Lee. As a result, Lumish steers an inventor away from the teachings in Lee.

Additionally, Lumish states that an advantage of its add/drop system is that it removes the need to demultiplex a signal as noted at C3, L15-16. If Lumish is advantageous because there is no need to demultiplex a signal, an inventor would not then turn around and incorporate demultiplexer technology back into the device of Lumish. Since Lumish teaches away from Lee, Lee and Lumish are not properly combined.

The cited art does not suggest the desirability of doing what inventor has done

There "must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine reference teachings" as disclosed in MPEP §2145(X)C. As a result, there must be some suggestion or motivation to combine Lee with Lumish.

The cited art does not provide a motivation for using the filter of Lee in place of the filters of Lumish. The Office Action argues that it would have been obvious to use the filter of Lee in place of the filters of Lumish to provide the advantage of a tunable add/drop. However, Lumish already teaches an add/drop system with tuning functionality as disclosed in Figure 4A,

and the associated discussion at C6, L41-43. Since Lumish already teaches a tunable add/drop system, there is no motivation to modify Lumish with Lee.

Rejection of Independent Claim 39 Under 35 USC 103(a)

Dependent claim 39 stands rejected as being unpatentable over U.S. Patent Number 6,466,341 (Lumish) in view of U.S. Patent Number 5,917,626 (Lee). “To establish a prima facie case of obviousness ... the prior art must teach or suggest each of the claim elements.” See MPEP §2142. Claim 39 specifies that “the channel selector is configured such that a **bandwidth** of a channel directed to the add/drop node can be tuned” (emphasis added). Accordingly, Lumish in view of Lee must teach or suggest a channel selector configured such that a **bandwidth** of a channel directed to the add/drop node can be tuned.

Lumish does not teach or suggest bandwidth tuning. Accordingly, the required teaching must be found in Lee. Lee teaches tuning of passband wavelengths. For instance, Lee discloses that the filter can be tuned “to pass one or more spectral components in the beam by adjusting the radial displacement r_1 ” where the “spectral components (are) of wavelengths $\lambda_2, \dots, \lambda_n$ ” (C5, L67-C6, L2 and C6, L10). Accordingly, the wavelength, $\lambda_1, \dots, \lambda_n$, that is passed by the filter can be tuned by changing the radial displacement. The ability to tune the wavelength passed by the filter is wavelength tuning. However, **wavelength tuning is not bandwidth tuning** since bandwidth tuning is directed to tuning the width of the passband rather than shifting the passband laterally on the wavelength spectrum. Since Lee teaches only wavelength tuning and does not teach or suggest passband tuning, the cited art does not teach or suggest every element of claim 39 and the rejection should be withdrawn.

Rejection of Claims 40 Under 35 USC 103(a)

Dependent claim 40 stands rejected as being unpatentable over U.S. Patent Number 6,466,341 (Lumish) in view of U.S. Patent Number 5,917,626 (Lee). “To establish a prima facie case of obviousness ... the prior art must teach or suggest each of the claim elements.” See MPEP §2142. Claim 40 specifies that “a first optical filter element configured to divert a channel from a beam such that the first channel has a first bandwidth, the beam including a plurality of the channels ... a second optical filter element configured to divert the channel from the beam such that the channel has a second bandwidth, that second bandwidth being different

from the first bandwidth. This claim language requires that when the different elements divert the same channel, the result has different bandwidths. Neither Lee nor Lumish teach or suggest different elements divert the same channel to produce different bandwidths. Since Lee nor Lumish neither teach nor suggest every element of claim 40, claim 40 is patentable over Lumish in view of Lee.

Additionally, the Office Action appears to suggest that the filter shown in Figure 2 of Lumish would serve as the first and second optical filter elements specified in claim 40 by citing “Lumish: fig. 2 and col. 5, lines 25-43.” However, if Lee’s filter is used in place of Lumish’s filter as suggested in the Office Action, then the filter shown in Figure 2 of Lumish would no longer be present in the resulting device. **The Examiner is respectfully requested to clarify this issue.**

Rejection of Claims 40, 41, and 42 Under 35 USC 103(a)

Dependent claim 40, 41, and 42 stand rejected as being unpatentable over U.S. Patent Number 6,466,341 (Lumish) in view of U.S. Patent Number 5,917,626 (Lee). Since claims 41 and 42 depend from claim 40, each of these claims includes “a first optical filter element configured to divert a channel from a beam such that the first channel has ... and a second optical filter element configured to divert the channel from the beam such that the channel has a second bandwidth. In the rejection of claim 40, the filter of Lumish shown in Figure 2 appears to be treated as both the first optical filter element and the second optical filter element as is illustrated by the citation to Figure 2 and C5, L25-43 of Lumish. However, in the rejection of claim 41 and 42, the optical fibers 401 and 402 positioned at r_1 and r_2 appear to be treated as the the first optical filter element and the second optical filter as illustrated by the Office Action at page 4, lines 9-10 and lines 20 and 21. Accordingly, the Office Action appears to be treating different components as the first filter element and the second filter element specified in the claims. Since claims 41 and 42 depend from claim 40, the first filter element and the second filter element used for rejection of claim 42 and 41 must also have the functionality specified in claim 40. As a result, **the Examiner is respectfully requested to clarify whether the filter shown in Figure 2 of Lee is being treated as the first and second filter elements or whether the optical fibers 401 and 402 of Lee are being treated as the first and second filter elements.**

Additionally, if the optical fibers 401 and 402 are being treated as the first and second filter elements, it is unclear how these optical fibers would divert the same channel from a beam to produce different bandwidths as required by claim 40. **In the event that the optical fibers 401 and 402 are being treated as the filter first and second elements, the Examiner is respectfully requested to elaborate on how these optical fibers divert the same channel from a beam to produce different bandwidths.**

Rejection of Independent Claim 46 Under 35 USC 103(a)

Dependent claim 46 stands rejected as being unpatentable over U.S. Patent Number 6,466,341 (Lumish) in view of U.S. Patent Number 5,917,626 (Lee). “To establish a prima facie case of obviousness ... the prior art must teach or suggest each of the claim elements.” See MPEP §2142. Claim 46 specifies that “the channel selector is configured such that when in the first channel mode, the first alternate channel is directed to the output node with a different bandwidth than the first channel directed to the add/drop node.” Accordingly, Lumish in view of Lee must teach or suggest at least a first alternate channel having a different bandwidth than a first channel.

The Office Action cites “fig. 2 and col. 5, lines 25-43” for the required teaching. In particular, the Office Action notes “where the Lumish disclosure reads on an add wavelength being different than a drop wavelength.” This rejection appears to be based on a misunderstanding of bandwidth versus wavelength. **Two different light signals can have different wavelengths while having the same bandwidth.** As a result, an add wavelength being different than a drop wavelength provides no teaching or suggestion regarding a first alternate channel having a different bandwidth than a first channel as is claimed. Since Lumish in view of Lee does not teach or suggest a first alternate channel having a different bandwidth than a first channel, Lumish in view of Lee does not teach or suggest each element of claim 46 and the rejection should be withdrawn.

Rejection of Claims 43-45, and 47-50 under 35 USC §102 and 35 USC §103

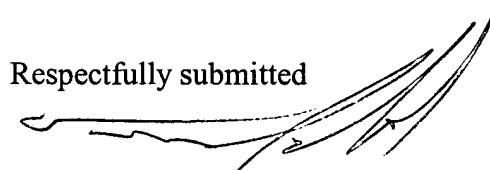
Claims 43-45, and 47-50 were rejected as being unpatentable over U.S. Patent Number 6,466,341 (Lumish) in view of U.S. Patent Number 5,917,626 (Lee). It is submitted that because

Dependent Claims 43-45, and 47-50 depend from Independent Claim 38, which are believed to be in condition for allowance, these claims are also in condition for allowance.

CONCLUSION

In light of the Amendments and arguments set forth above, Applicants believe they are entitled to a letters patent. The Examiner is encouraged to telephone the undersigned with any questions.

Respectfully submitted



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